Application/Control Number: 10/747,847 Docket No.: 2002-0451

Art Unit: 2163

<u>AMENDMENT</u>

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

- 1. (Currently Amended) A method of computing an answer to a query path pattern, comprising:
- (a) associating nodes in a query pattern with respective streams stream nodes containing positional attributes;
- (b) associating a respective stack to each node in the query pattern;
- (c) sorting the stream nodes according to a first one of the positional attributes;
- (d) determining whether a first set of streams is empty;
- (e) retrieving a first node in the first set of streams having a minimum value for the first one of the positional attributes;
- (f) removing partial answers that cannot extend to full answers from a stack associated with the query pattern node;
- (g) augmenting remaining partial answers with a further stream node;
- (h) determining whether the further stream node is a leaf node; and
- (i) producing solutions if the further <u>stream</u> node is a leaf node.
- 2. (Original) The method according to claim 1, wherein the first one of the positional attributes corresponds to left position value.
- 3. (Original) The method according to claim 1, wherein the positional attributes include one or more of left position value, right position value, and level number.
- 4. (Original) The method according to claim 1, wherein the first set of streams is in a substree rooted at a given node associated with the query pattern.
- 5. 9. (Cancelled)

Application/Control Number: 10/747,847 Docket No.: 2002-0451

Art Unit: 2163

10. (Currently Amended) An article comprising:

a storage medium having stored thereon instructions that when executed by a machine result in the following:

- (a) associating nodes in a query pattern with respective streams stream nodes containing positional attributes;
- (b) associating a respective stack to each node in the query pattern;
- (c) sorting the stream nodes according to a first one of the positional attributes;
- (d) determining whether a first node in the first set of streams having a minimum value for the first one of the positional attributes;
- (e) retrieving a first node in the first set of streams having a minimum value of the first one of the positional attributes;
- (f) removing partial answers that cannot extend to full answers from a stack associated with the query pattern node;
- (g) augmenting remaining partial answers with a further stream node;
- (h) determining whether the further stream node is a leaf node; and
- (i) producing solutions if the further stream node is a leaf node.
- 11. (Cancelled)
- 12. (Currently Amended) A computer, comprising:

a memory having stored instructions that when the executed result in the following:

- (a) associating nodes in a query pattern with respective streams stream nodes containing positional attributes;
- (b) associating a respective stack to each node in the query pattern;
- sorting the stream nodes according to a first one of the positional attributes;

Application/Control Number: 10/747,847 Docket No.: 2002-0451

Art Unit: 2163

(d) determining whether a first node in the first set of streams having a minimum value for the first one of the positional attributes;

- (e) retrieving a first node in the first set of streams having a minimum value of the first one of the positional attributes;
- (f) removing partial answers that cannot extend to full answers from a stack associated with the query pattern node;
- (g) augmenting remaining partial answers with a further stream node;
- (h) determining whether the further stream node is a leaf node; and
- (i) producing solutions if the further stream node is a leaf node.
- 13. (Cancelled)